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## PATENT SPECIFICATION

301,636



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Complete Left : Aug. 18, 1928.

Complete Accepted : Dec. 6, 1928.

## PROVISIONAL SPECIFICATION.

## Improvements in Handlebars for Cycles, Motor Cycles and other Vehicles.

We, CYRIL GEORGE PULLIN, a British subject, of 11, Small Street, Bristol, and STANLEY LAURENCE GROOM, a British subject, of "The Homestead," Thrake Road, Streatham, London, S.W. 16, do hereby declare the nature of this invention to be as follows :—

This invention relates to handlebars for cycles and motor cycles, but it is applicable to the steering mechanism of other vehicles.

The object of the invention is to provide a construction of handlebar which is more suited to the duties which it has to perform on a modern motor cycle or other motor vehicle. With existing constructions of handlebar it is difficult to find suitable positions for the various control levers, instruments, etc., which is overcome by the present invention.

Accordingly, the bar is flat throughout the greater part of its width, is wide in the middle and tapers towards the ends, terminating in end portions of a suitable shape to receive the hand grips.

In one method of carrying out the invention, the bar is of boxlike section, and a streamline section providing an upper flat surface is preferred. The under surface may be of any suitable shape. Preferably the rear edge is straight until near the ends, and the front edges are inclined to the rear edge so that the flat portion is at its maximum width in the centre of the handlebar, the bar tapering towards the ends. The extreme ends are preferably turned backwards slightly, and they are shaped to receive the grip portions, or they are provided with parts to receive these portions.

Preferably the complete handlebar is made of pressed sheet metal in one or more parts, but this method of manufacture is not essential. For example, there might be a light tubular or other frame with metal covering sheets welded or otherwise attached to it. It might also be cast or built up of a number of pieces of sheet metal or malleable castings.

As an example, a clock and a speedometer may be mounted symmetrically near the widest part of the handlebar, that is to say, one each side of the

centre, and between these might be an ammeter, the three being illuminated by a flush lamp mounted on the bar. Beyond these might be other instruments and towards the grip portions there might be attached control levers connected with the ignition advance and steering damper. Beyond these might be other levers controlling the clutch, carburettor air intake, and, where the bar receives the grips, there are the usual exhaust valve lever and front brake lever, these being fitted to the extreme ends of the bar. Along the straight back edge of the bar might be provided attachments to receive a tyre pump, and on the front edges might be welded or otherwise secured eyes or lugs to receive the pillars of a windscreens.

In one method of constructing and attaching the handlebar, there might be a central head clip which is rectangular in plan and is attached in any convenient manner to the steering column. Passing transversely through the front of this is a hole for the front shackle of the spring fork. Behind this, and in front of the steering column, is another hole for a front handlebar bolt, and behind the steering column is a similar hole for the rear handlebar bolt. The two sides of the bar in this case are formed separately from one another and are bolted to the head clip by bolts passing through the front and rear handlebar bolt holes. For example, each handlebar side portion may have a downwardly projecting flange through holes in which pass the bolts, and preferably one or both of the holes is slotted to allow the bar to be tilted slightly. In this way simple and substantial means of adjustment is provided.

Preferably each part of the bar in this case is formed of a single sheet of steel doubled over to provide the required section and with the rear edges welded together, the shape of each plate being such as to provide the required flat face and tubular or other end portion which receives the grips.

Preferably all the wiring and cables pass through the bar parts and steering column and are invisible, and by arranging the speedometer in the position men-

Dated this 19th day of November, 1927.  
 ERIC W. WALFORD,  
 Fellow of the Chartered Institute of  
 Patent Agents,  
 19, Hertford Street, Coventry,  
 Agent for the Applicants.

### COMPLETE SPECIFICATION.

#### Improvements in Handlebars for Cycles, Motor Cycles and other Vehicles.

We, CYRIL GEORGE PELLIN, a British subject, of The Ascot Motor & Manufacturing Company Limited, Letchworth, Hertfordshire, formerly of 11, Small Street, Bristol, and STANLEY LAURENCE GROOM, a British subject, of "The Homestead," Thrace Road, Streatham, London, S.W. 16, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to handlebars for cycles and motor cycles, but it is applicable to the steering mechanism of other vehicles.  
 The object of the invention is to provide a construction of handlebar which is more suited to the duties which it has to perform on a modern motor cycle or other motor vehicle. With existing constructions of handlebar there is difficulty in finding suitable positions for the various control levers, instruments, etc., which is overcome by the present invention.

Accordingly, the bar is flat throughout the greater part of its width, is wide in the middle and tapers towards the ends, terminating in end portions of a shape adapted to receive the hand grips.

In the accompanying drawings, Figure 1 is a plan of one form of handlebar.

Figure 2 is a similar view of a modified form.

Figures 3 and 4 are fragmentary perspective views of further modifications.

Figure 5 is a front elevation of the handlebar shown in Figure 2, and

Figure 6 is a section on the line VI—VI of Figure 5.

Like numerals indicate like parts throughout the drawings.

In carrying out the invention, the bar 2 is a box-like section, having the upper surface 3 flat and the under surface of 50 any desired shape. Preferably the rear edge 4 is straight until near the ends as in Figure 1, or it may be curved rearwardly as in Figure 2, and the front edge 5 is contoured so that the flat portion 3

is at its maximum width in the centre of the handlebar, the bar tapering towards the ends 6. The latter are preferably directed backwards slightly, and they are shaped as at 7 (Figure 3) to receive the grip portions 8, or they are provided with 60 parts to receive the grips.

As shown in Figures 1 and 2, the complete handlebar is made of pressed sheet metal in one or more parts, but this method of manufacture is not essential. For example, in Figure 3 there is a light tubular frame 9 with metal covering sheets 10 welded or otherwise attached to it, or, as shown in Figure 4, the frame is formed of channel section material 11 to which are attached the covering sheets 10. The bar might also be cast or built up of a number of pieces of sheet metal or malleable castings.

As an example of the disposition of instruments, controls, etc., a clock 12 and a speedometer 13 are mounted symmetrically near the widest part of the handlebar, that is to say, one each side of the centre, and between these is an ammeter 14, the three being illuminated by a flush lamp 15 mounted on the bar. Beyond these there is room for other instruments and towards the grips 8 there are attached control levers 16 and 17 connected with the ignition advance and steering damper respectively. Between these and the grips are other levers 18 and 19 (Figure 2) controlling the clutch and carburettor air intake respectively. Where the bar receives the grips 8, there are the usual exhaust valve lever 20 and front brake lever 21, these being fitted to the extreme ends of the bar. In the construction shown in Figure 1 the straight back edge 4 of the bar is provided with attachments 22 to receive a tyre pump 23, and on the front edge are welded or otherwise secured eyes or lugs 24 to receive the pillars of a windscreens (not shown).

In Figure 2 no flush lamp is shown to illuminate the instruments, this being done by a lamp (not shown) inside the handlebar which illuminates the instrument dials from the rear.

- In one method of constructing and attaching the handlebar, there is a central head clip 25 (Figures 5 and 6) which is rectangular in plan and is attached in 5 any convenient manner to the steering column 26. Passing transversely through the front of this is a hole 27 for the front shackle of the spring fork. Behind this, and in front of the steering column, is 10 another hole 28 for a bolt, and behind the steering column is a similar hole 29 for another bolt. Depending flanges 30 are pressed from the underside of the bar and these are perforated to correspond 15 with the holes 28 and 29 in the clip 25 through which pass the fixing bolts 31. As shown in Figure 6, the forward perforations 32 in the flanges 30 are slotted so that the inclination of the handlebar 20 can be adjusted.
- Alternatively, the two sides of the bar could be formed separately from one another and could be bolted to the head clip, as before. For example, each handlebar side portion may have a downwardly 25 projecting flange through holes in which pass the bolts, the holes being slotted for adjustment, as previously described.
- Preferably each part of the bar in this 30 case is formed of a single sheet of steel doubled over to provide the required section and with the rear edges welded together, the shape of each plate being such as to provide the required flat face and 35 tubular or other end portion which receives the grips.
- Where the section of the bar changes, i.e., towards the ends 6, a sleeve, such as 40 33 (Figure 2) surrounds it and forms an abutment against which the grips 8 are thrust. This sleeve also carries a switch 34 which may serve for operating an electric horn or any other electrical device.
- Preferably all the wiring and cables 45 pass through the bar parts and steering column and are invisible, and by arranging the speedometer 13 in the position mentioned its operating shaft passes neatly down outside the steering head and 50 inside the fork blades.
- Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is:—
- 55 1. A handlebar for a cycle or the like, in which the bar is flat throughout the greater part of its width, is wide in the middle and tapers towards the ends, terminating in end portions of a shape 60 adapted to receive the hand grips, substantially as and for the purpose described.
2. A handlebar as claimed in Claim 1, in which the bar is of box-like section 65 and is formed of sheet metal in one or more parts as by pressing, substantially as described.
3. A handlebar as claimed in Claim 1, in which the bar comprises a light frame 70 having metal covering sheets attached thereto, as by welding, substantially as described.
4. A handlebar as claimed in any of the preceding claims, in which indicating instruments are mounted symmetrically near the widest part of the handlebar and are illuminated by direct or transmitted rays of a lamp on (or within) the bar, whilst beyond these are attached control devices, substantially as described. 75
5. A handlebar as claimed in any of the preceding claims, in which depending flanges are formed on the underside of the bar, as by pressing, and these are adapted to engage and be clamped to a part carried by the steering column, substantially as described. 80
6. A handlebar as claimed in Claim 5, in which slotted bolt holes are provided in the depending flanges, substantially as 85 and for the purpose described.
7. A handlebar as claimed in Claim 1, in which the two sides of the bar are formed separately and have downwardly 90 projecting flanges adapted to be clamped, preferably adjustably, to a part on the steering column, substantially as described. 95
8. A handlebar as claimed in Claim 7, in which each part of this bar is formed 100 of a single sheet of metal doubled over to provide the required section and united by welding at the rear edges, substantially as and for the purpose described.
9. The complete handlebar for a cycle or the like, and the method of constructing it, substantially as described or as illustrated in Figure 1, or Figures 2, 5 and 6, or Figure 3 or Figure 4 of the 105 accompanying drawings. 110

Dated this 17th day of August, 1928.  
 ERIC W. WALFORD,  
 Fellow of the Chartered Institute of  
 Patent Agents.  
 19, Hertford Street, Coventry,  
 Agent for the Applicants.

*[This Drawing is a reproduction of the Original on a reduced scale.]*

Fig. 1.

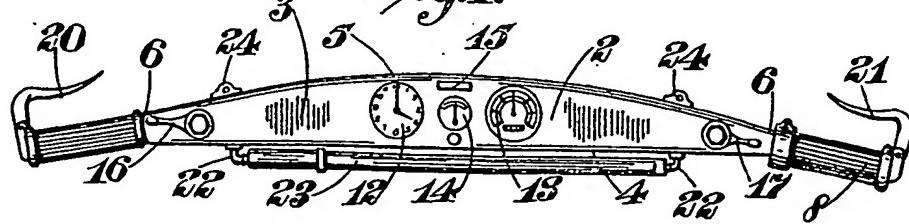


Fig. 2.

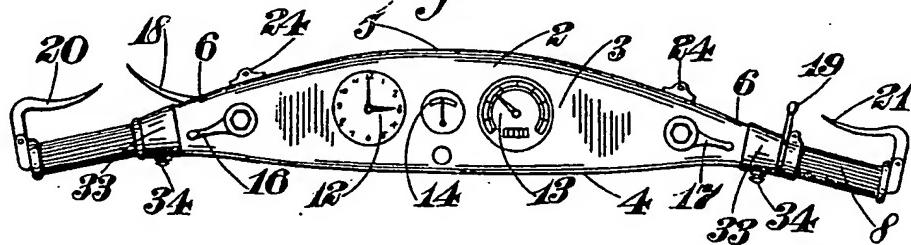


Fig. 3.

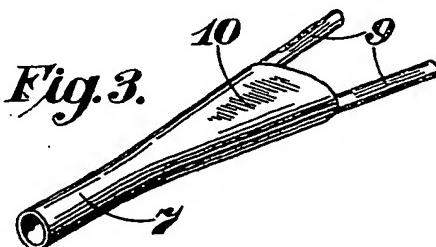


Fig. 4.

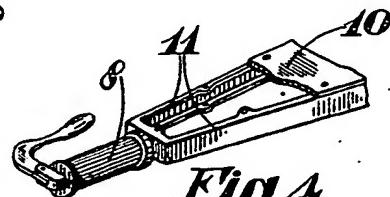


Fig. 5.

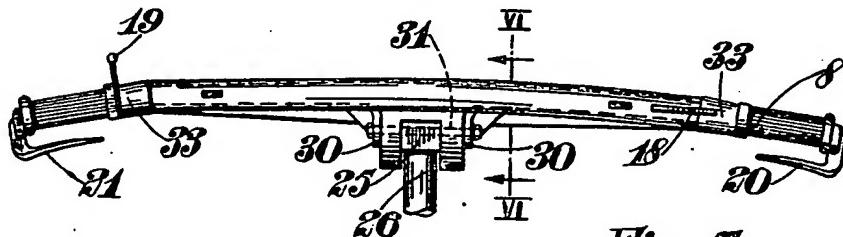
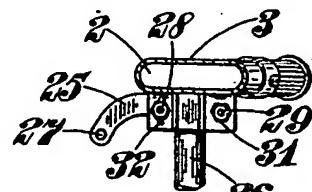
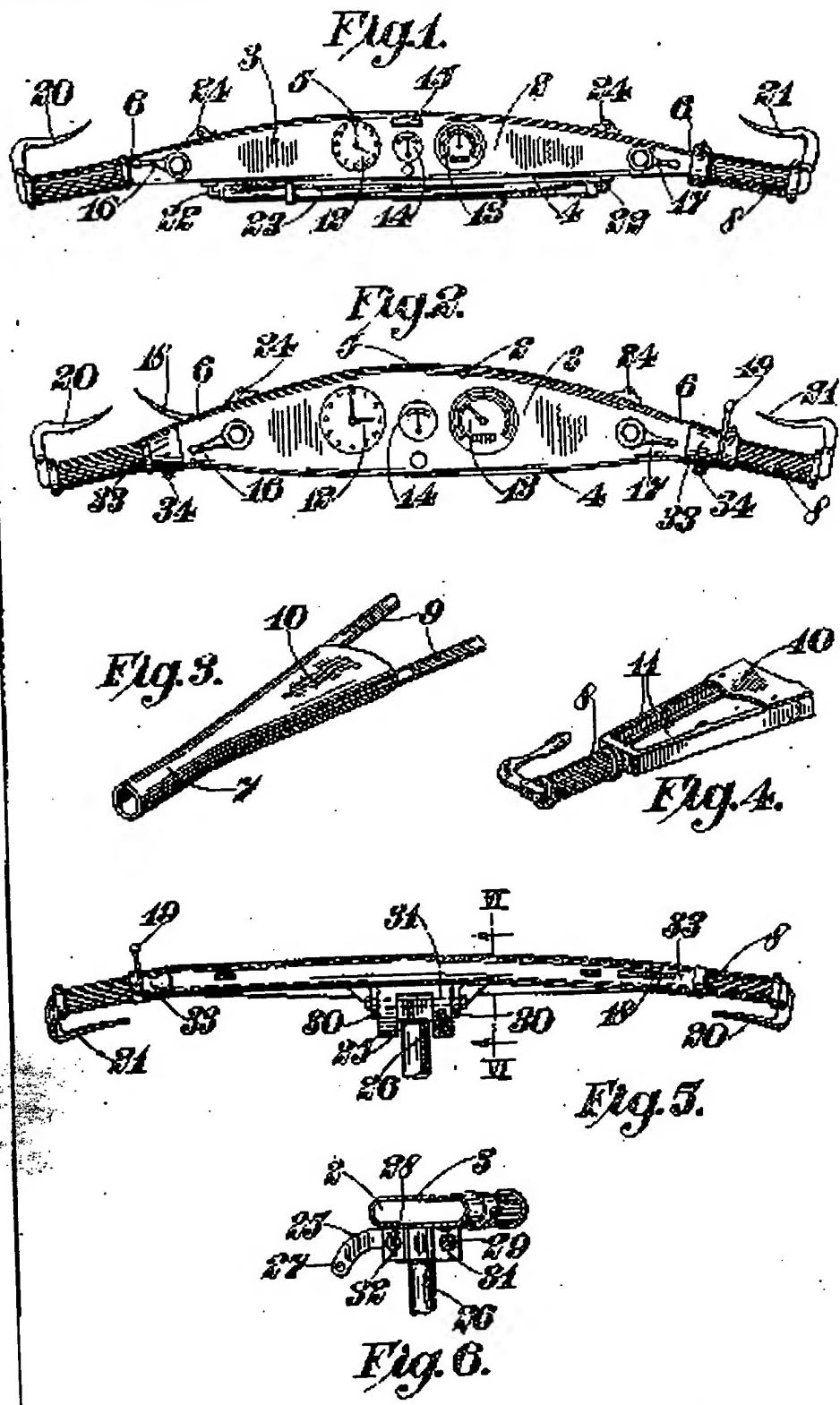


Fig. 6.



*This Drawing is a reproduction of the Original on a reduced scale.*



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